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ABSTRACT

A study was conducted to support the Department of Labor's (DOL) efforts to promote an expansion of the apprenticeship training system. The study began with a review of literature that clearly showed the need for attention in the area of establishing credentials to reflect the quality of training experiences, particularly in the work-based format because of its inherent variability of content. In an effort to obtain more recent information about barriers and opportunities in establishing a credentialing process in new and emerging occupations, two data collection efforts were made. The first was a formal survey of 39 representatives of the various constituencies interested in or related to the apprenticeship system. The second type of data collection involved informal discussions with 10 opinion leaders in the employment and training areas. Data from both collection efforts were integrated to define the reactions of the various apprenticeship communities to the prospects for a national work-based training initiative. Possible problems were identified and two strategies were proposed to assist the DOL in overcoming them. The strategies were: (1) work-based training in a demonstration project and (2) a comparative examination of work-based training. (Includes lists of study participants, the questionnaire, and 12 references.) (KC)

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- the quality and nature of partnerships with education, business, industry, and labor;
- an opportunity for persons in at-risk situations to succeed in education, training, and work environments;
- the short- and long-range planning for education and training agencies, and
- approaches to enhancing economic development and job creation.

Credentialing the "New Model" of Apprenticeship Training: Overcoming the Paradox of Implementation

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March, 1990

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FOREWORD

Education and training in America are changing. All aspects of what were once considered matters of course are increasingly under scrutiny. In order to be sustained in the future, institutional structures must transform to meet changing needs. This is especially true in the area of training the workforce of the 21st century. Clearly, these challenges must be addressed and the needs of the entire population met if the nation is to retain its standing in an increasingly competitive world.

Work-based training in America is an area of great promise. Founded as it is on the apprenticeship model of the past, we now have an opportunity to adapt this approach which has served us well toward the workplace of the future. Yet, as appealing as this may be, there are obstacles and barriers which must be overcome. In a sense, the way in which we deal with the opportunity work-based training offers us is symbolic of how we will deal with the challenges that new emerging technologies, an increasingly international marketplace, and our goals with respect to social equality will be addressed. Indeed, they are linked together. Our opportunities are limitless if we have the courage to pursue them. There are good, sound reasons to turn away from the challenges. Progress will upset the established order, it will require changes in our behavior, and it may involve some degree of personal and social risk. Yet, to succumb to these barriers is to let the opportunity pass. In so doing, we invite a catastrophe far worse than than the problems the obstacles posed.

This study of the credentialing process of work-based training performs several functions. First, it outlines some of the opportunities and problems ahead, should the U.S. Department of Labor continue its forward-looking approach to the expansion of apprenticeship style training. Further, it collects new data which show the scope and response of those involved at all levels of the apprenticeship system to the potential of work-based training in the future. Finally, it reports the recommendations of these groups in terms of how the apprenticeship systems can be improved.

However, this report goes farther. In response to discussions with persons in the Bureau of Apprenticeship and Training, U.S. Department of Labor, the parameters of this study was changed in mid-course to better reflect the changing needs and new thinking developing in that unit as a result of their "Apprenticeship 2000" series of studies, of which the Center of Education and Training for Employment was privileged to participate. Consequently, the Center in its desire to serve the Department and the nation, undertook a broader responsibility. This, of course, took more time, but we are confident that this report will provide practical suggestions to support the Bureau in its very significant work.

I would like to take this opportunity to acknowledge a number of individuals who contributed to the success of this project. First, Dr. Gary M. Grossman of the Center staff served as Project Director and principal author of the report. In order to complete his assignment, he survived personnel changes, staff retirements, and repeated interruptions in the planned schedule of his work. We thank him for his perseverance. As well, we wish to thank Mr. Harry N. Drier for his origination of the project and his leadership in its early stages. As well, Dr. Max Lerner served as a data collector on a major portion of the project which required him to tap the resources of the apprenticeship community nationally.

At the Bureau of Apprenticeship and Training, we want to especially thank Mr. Nick Kolb his staff were most helpful and patient with our needs and difficulties throughout the project. As well, Dr. James Van Erden provided crucial input and support in directing us toward issues of most value to the Department.

Finally, we want to acknowledge the work of Ms. Monyeene Elliott for her clerical support of this effort. Ms. Elliott can always be counted on to provide us with the right information at the right time. We could not have done it without her.

Change involves risk and the prospect that not everyone will regard movement as progress. This is inherent in any analysis of the benefits and hazards associated with work-based training. However, I am proud of the Center for once again delivering a report of integrity to the Department of Labor for the ultimate benefit of the people of the United States of America.

Ray D. Ryan
Executive Director
Center on Education and
Training for Employment

CREDENTIALING THE "NEW MODEL" OF APPRENTICESHIP TRAINING: OVERCOMING THE PARADOX OF IMPLEMENTATION

Executive Summary

The Employment and Training Administration of the United States Department of Labor has for a number of years been examining and, at times, aggressively promoting the notion of an "expansion" of the apprenticeship training system. This study proposes to support the Department in its efforts through several means. First, it provides some information as to the importance of the accreditation issue in the development of a "new model" of the apprenticeship system. Beyond that, it will attempt to assist the Department to enhance its strategy in overcoming the barriers the new model presents. Ultimately, it proposes that the Department be prepared to act aggressively in gaining appropriate resources and support for significant movement in this area.

The Recent Literature In Accreditation and Credentialing

The literature clearly shows the need for attention to the area of establishing credentials to reflect the quality of training experiences, particularly in the work-based format because of its inherent variability of content. In addition, it shows that accreditation and credentialing work across the board. Given this framework, data were gathered not only about the problem, but also in terms of potential solutions for the Department's consideration.

Data Collection

In an effort to obtain more recent information about barriers and opportunities in the area of establishing a credentialing process in new and emerging occupations than is generally available, two types of data collection efforts were undertaken in this study. The first was a formal survey of representatives of the various constituencies interested in or related to the apprenticeship system. A second type of data collected involved informal discussions with 10 opinion leaders in the employment and training area. They are later integrated in a summary section to define the reaction of the various apprenticeship communities to the prospects for a national work-based training initiative.

Survey Results

The respondents to the formal survey instrument varied as to their orientation to the apprenticeship training system. Relatively equal groups of private sector individuals, educators, administrators, employment and training agency representatives, and others were included. The reactions of survey respondents are reported in terms of their answers to issues such as the nature and relevance of training standards, credentialing, and quality control. Respondents also made a number of recommendations toward improvement in the apprenticeship system.

The survey results were helpful in defining the context of the apprenticeship system as it exists. However, the purposes of this study were broader than the identification of a few items

that the Department should consider for the improvement of the system. Accordingly, the study team discussed the expansion of work-based training more generally with 10 key opinion leaders in terms of the potential for work-based training in a broader context.

Implementing the "New Model" of Work-Based Training

The implementation of the intentions of the Department of Labor involve introducing incentives to transform the context of work-based training as it exists today. A crucial part of that process is the establishment of a uniform system of training within new and emerging occupational areas and across industries. There are barriers, however, as revealed in the literature and the data collected in this study. Two distinct but related strategies are proposed to assist the Department in initiating an effective response to those problems. The advantages and disadvantages of each strategy are discussed. These strategies are seen as potentially complementary ways of contributing vital information with which the Department can overcome some of the problems inherent in the process while continuing to move prudently toward its stated goals.

Indeed, work-based training has a great potential for the quality of the workforce and the future of the economy. It is the position of the study team that such potential can be realized. Along with it, the vision of Secretary Dole and the U.S. Department of Labor becomes significantly nearer to realization as well.

CREDENTIALING THE "NEW MODEL" OF APPRENTICESHIP TRAINING: OVERCOMING THE PARADOX OF IMPLEMENTATION

Introduction

The Employment and Training Administration of the United States Department of Labor has for a number of years been examining and, at times, aggressively promoting the notion of an "expansion" of the apprenticeship training system. Indeed, it has argued rather convincingly through a variety of means that the style and format of the apprenticeship system is a highly appropriate and efficient mode of training, uniquely suitable to certain kinds of workers and occupations. It has further stated, again with a solid basic rationale, that given the rapid transformation of the occupational structure and, if one accepts the premises of a variety studies, (the Hudson Institute's Workforce 2000 (1987) prominent among them), its inherent opportunity for individuals and the nation, more appropriate systems of occupational training need to be developed. Obviously, as the apprenticeship approach seems to work so well with precisely the populations Hudson and others identify as being the most necessary to mobilize in support of this transformation (e.g., women, minorities, immigrants, etc.), this type of "experience- and work-based" training may offer great promise. Therefore, under what circumstances, the Department asks, could this approach cross the lines of traditional systems into "new and emerging occupations"?

On its face, the logic is impeccable. As well, the commitment of the U.S. Department of Labor appears to have been very consistent over at least the past 15 years. This issue has been

particularly high on the Department's agenda over the past two administrations, expressing itself most eloquently in the confirmation testimony of Secretary Elizabeth H. Dole, when she stated:

> We have within our reach the fulfillment of a long-awaited dream-that every American who wants a job can have a job. But to fulfill for many Americans, we must bring about timely and coherent intervention-not simply by government, but through the cooperation of private enterprise, unions, schools, and community leaders-to wipe out illiteracy and enhance skills through basic education, training and retraining. Only then can all Americans profit from growth by competing for the jobs that growth creates.
>
> (U.S. Department of Labor, 1989:4)

The Department obviously believes that structured workplace training can make a substantial contribution in making this goal a reality, a position that has some support in recent studies. It is, however, at least somewhat aware of the existence of barriers in bringing this expansion about. It recognizes that the accreditation and credentialing issue is important, as evidenced by its inclusion in a set of recommendations stemming from its "Apprenticeship 2000" series of papers and the identification of several action items for progress in this area. What is not well documented in its presentation is the degree to which the issue of quality assurance, and implicitly certification, is crucial to its intentions. In this paper, it is argued that credentialing is perhaps the principal barrier to the fulfillment of the promise of the expansion of structured work-based training in America. At the same time, research to substantiate the value of work-based training is far too deficient to support a policy change of such magnitude. Consequently, the Department is challenged to devote considerable attention to the problem.

This study, then, has a multiplicity of purposes. First, it provides some information as to the the importance of the accreditation issue in the development of a "new model" of the apprenticeship system. Beyond that, it will attempt to assist the Department to enhance its strategy in overcoming the barriers the new model presents. Ultimately, it proposes that the Department be prepared to act aggressively in gaining appropriate resources and support for significant movement in this area.

This will not be a simple matter. Indeed, the sides lining up against such progress are formidable. However, if the Department is serious about the matter of expansion of work-based learning, and all evidence suggests that it is, a high departmental priority on the resolution of the credentialing issue, as opposed to its mere presentation, would be very well considered. This study intends to provide the Department some support in so doing.

The Recent Literature In Accreditation and Credentialing

According to the Council on Postsecondary Accreditation (COPA) 1985, accreditation involves:

> . . . recognizing educational institutions and professional programs affiliated with those institutions for a level of performance, integrity, and quality which entitles them to the confidence of the educational community and the public they serve. In the United States this recognition is extended primarily through nongovernmental, voluntary, institutional, or professional associations. These groups establish criteria for accreditation, arrange site visits, and evaluate those institutions and professional programs which desire accredited status, and publicly designate those which meet their criteria.

Thus, as this passage involves credentials for program completion, irrespective of emphasis, the key notion to certification

is the acknowledgement of an individual as having been trained in a system in which it is recognized that some information or characteristic of value has been transferred from a recognized body of thought or skills to a trainee. Therefore, a person interested in considering involving that individual in another setting, such as an employer, can make certain assumptions about the quality of that training without necessarily needing to be aware of highly specific information about the program or institution. Certification is meant to contribute, therefore, to a far more efficient transaction in the match between candidate and opportunity. When the process performs properly, it also encourages fairness, establishing general, transferable, and relatively objective criteria for trainee evaluation (Young 1987).

The desirability and relevance of accreditation with respect to work-based training have been known for some time. Stated bluntly, what is most clearly lacking in certification efforts involving apprenticeships is that efficiency, fairness, generality, and objectivity have rarely been terms applied to apprenticeship training systems. In fact, quite the opposite is generally thought to be the case. Glover (1986) cites seven key weaknesses of the American apprenticeship system, variable quality of training offered, lack of generality and linkages to other forms of training, and questions of equal access prominent among them. Worthington (1984) notes the the lack of a relationship between time spent in apprenticeship programs and the competencies which are presumed to emerge from such experience. What, then, does an employer know about a candidate after having been certified

through an apprenticeship program? Apparently, very little indeed.

The consequences of these issues have not been restricted to observations made in research findings. Business and industry, not just in the United States but also in Europe, where it is mistakenly presumed that the apprenticeship systems perform much more effectively, is not at all certain what constitutes effective work-based training in the area means (Glover and Shelton 1987; Hamilton 1985; Noah and Eckstein 1986) and problems of transferability have been raised repeatedly. This is not to say that in certain industries and in some locations the apprenticeship system does not work very well. Indeed, the basis upon which the U.S. Department of Labor has been able to credibly promote the concept of work-based training is that its value is generally recognized at least to some degree. Yet, there is no mechanism to generalize this value nor to express it across the borders of whatever programs are locally known and respected. Clearly, some mechanism needs to be established whereby high-quality work-based training can be communicated beyond the reach of simple word-of-mouth or reputation. Further, it is apparent that some approaches seem to work while others do not. Obviously, the solution involves some type of universal accreditation process for apprenticeship training that can assist business and industry in making better choices, as Young (1987) suggests. Beyond that, however, is the identification of those aspects of or approaches to work-based training that provide the essential core of value.

Without question, there has been need for action in this arena for some time. Less apparent is the reason why it has not taken place. Despite the fact that it is an issue that has been quite clear to observers over the years, surprisingly little specific attention has been devoted to accreditation and credentialing within the context of the apprenticeship experience. For example, in a search of the entire database of the Educational Resources Information Center (ERIC) which includes almost one half-million documents and the largest single location of entries about apprenticeship issues, only 15 items could be identified which are even remotely to accreditation or credentialing. Of these, only one half deal with the issue relative to the United States.

Why, then, if credentials are so critical an issue and so clear a need, has it been dealt with in such a shallow fashion? One answer may be found in the explanation provided by Dertouzos and Solow (1989), referring to "a legacy of long neglect." Another issue they cite is the national reluctance in making investments in training generally, as clearly would be required to set up a system which would promote greater uniformity in training standards across the nation.

These are certainly possibilities. However, a much more satisfactory explanation suggests that few efforts would be more threatening to the vested tradition of the apprenticeship system than one which would tend to shift the balance of power toward any other entity which could substantially influence trainee recruitment, selection, and placement, not to mention training content as

clearly as a national accreditation process would. Hence, insofar as the Department of Labor is the source of a large measure of the research performed in the apprenticeship area and because of the fact that it can hardly stand apart from the interplay of political forces in the process, perhaps the lack of investigation into the issue has been a result of the fact that the potential size of the opposition is very apparent. To involve the Department by itself at this scale necessary may well cause such opposition to solidify, imperiling those efforts about which it is concerned. The issue certainly has been "neglected," but perhaps not due to oversight alone. While it is a very straightforward matter conceptually, it becomes most difficult as a public policy question. Thus, perhaps the Department has understandable difficulty in taking action beyond urging it along and hoping for a critical mass of support to develop.

Balanced against the political problems is the reality that movement to establish non-traditional types of credentials has tended to be well received in other training arenas. Stoyanoff (1982) reports that a program to establish, recognize, and credential CETA training was considered by employers to be very valuable and a motivation of some significance to their trainees. While it never emerged as a standard practice in CETA because of many of the same challenges faced in apprenticeship training, the utility of credentialing the training process was quite apparent. Likewise, efforts to coordinate apprenticeship training as part of a three year community college experience was found to be very effective (Tuholski 1982). Further, the experience of other

nations in this area, particularly as it results in certification in non-traditional areas, has met with success in certain agricultural occupations (Taylor and Deane 1984). Finally, certification alone, even apart from specific occupational training, seems to work. Even the General Education Development (GED) certificate has been shown to be useful to employers as an indicator of job readiness, if not necessarily marketable skills (Pawasarat and Quinn 1986). While perhaps the best that can be said about the GED as a credential for employability is that it is preferable to no credential at all, this fact underscores the point that business and industry are not simply receptive but very desirous of some kind of standard on which to base employment decisions. Obviously, this approach has worked so well for academic training over so many years that it is often forgotten that the issues and process factors are similar to that of work-based training. This may provide a further clue to developing a practical approach to overcoming opposition.

The literature clearly shows the need for attention to the area of establishing credentials to reflect the quality of training experiences, particularly in the work-based format because of its inherent variability of content. In addition, it shows that accreditation and credentialing work across the board. Given this framework, data were gathered not only about the problem, but also in terms of potential solutions for the Department's consideration. The following section will address these issues.

Data Collection

In an effort to obtain more recent information about barriers and opportunities in the area of establishing a credentialing process in new and emerging occupations than is generally available, two types of data collection efforts were undertaken in this study. The first was a formal survey of representatives of the various constituencies interested in or related to the apprenticeship system. In total, 39 individuals from 5 states were personally interviewed in an open-ended format (see appendix). Their responses were coded and tabulated. The respondents were distributed across categories as follows:

TABLE 1

CATEGORIES OF SURVEY RESPONDENTS

Employers	8
Trade Group Representatives	2
State Level Educators	8
Administrators (Federal and State)	8
Union Representatives	3
Vocational Rehabilitation Specialists	3
Interest Group Representatives	2
Postsecondary Educators	3
JTPA Representatives	2
	n=39

The intention in this survey was to locate individuals across the country in a position who know and are concerned about the apprenticeship system. They represent business and industry, educators, union people, and trades representatives. While the sample size is too small for between group differences to be

assessed, the data do provide some insight into how the apprenticeship community views both the process and the product. A complete list of all survey respondents is reported in the appendix.

A second type of data collected involved informal discussions with 10 opinion leaders in the employment and training area. The purpose of these conversations involved establishing a context around apprenticeship credentialing issues, discussing barriers to improved accreditation processes, and how these barriers might be overcome. These individuals, all recommended to project staff by the Department of Labor, are in positions which either initiate policy or are affected by it. As such, they are knowledgeable about the problem and have substantial experience in addressing it. A complete list of these respondents is reported in the appendix as well.

Each of these sets of data will be reported individually. They will be integrated in a summary section at the end of this report.

Survey Results

The respondents to the formal survey instrument varied as to their orientation to the apprenticeship training system. Relatively equal groups of private sector individuals, educators, administrators, employment and training agency representatives, and others were included. As a consequence, there is some degree of variance between respondents as to their positions on questions pertaining to the apprenticeship area. However, one strong trend

that characterizes the survey data is that respondents tended to focus their remarks and their thinking upon the apprenticeship system as it currently exists, i.e., the "old model." That is, of course, understandable. The current system is that which they are professionally involved. Yet, it also reveals something of a limited vision, at least on the aggregate level, to the problems and opportunities of work-based training. However, the survey does suggest what and who should be included in any new set of work-based training objectives. While only major themes will be discussed in this paper, complete survey results are provided in the appendix.

Standards

First, the respondents were asked if there are standards in place for all apprenticeship programs in their respective areas. Nearly all respondents (95 percent) reported that there were. More than one third stated that the local/state joint committee set those standards, the modal response to the category. There was an important difference, however, between those who saw the need for input from others into the process, principally the education community, and those who were committed to leaving the process in the hands of those who currently control it. This was the first suggestion in the survey as to the possibility of a fundamental dispute between those favoring apprenticeships as they exist as opposed to those who might view it in some expanded framework. Standards as established were generally seen as being closely followed.

In terms of what recommendations respondents would suggest on the issue of standards, a number sought change, principally in the areas of increased flexibility toward meeting established standards (21 percent); raising the standards to more acceptable and relevant levels (21 percent); and improving attempts to recruit young, female, and minority trainees (15 percent). However, a substantial number (15 percent), stated that no changes needed to be made at all, despite the acknowledged ambiguity and rigidity of meeting work standards.

Credentialing

The issue of credentials added clarity to the picture of one portion of the apprenticeship community pressing for change while another actively resisting it. All respondents stated that the credentials provided by apprenticeship training programs were recognized by employers in their state and the vast majority (94 percent) believed they were recognized by employers elsewhere. It was the consensus opinion, therefore, that credentials are marketable and make a difference to employers.

Survey respondents were then asked what could be done to further improve the recognition of apprenticeship credentials. A plurality (44 percent) of those answering the question suggested that greater visibility of or publicity about the value of credentials would improve their marketability to employers. However, despite their presumed value, an almost equal number (40 percent) responded that things were fine the way they were, no changes being indicated. Likewise, in terms of recommendations, publicity

and visibility were the most often cited. However, the very consistent position of "no changes" in the credentialing process was also clearly heard.

Quality Control

The possibility of monitoring of training quality was discussed next in the survey. Respondents identified the local/state joint committees as the most likely source of training effectiveness control. However, most (66.7 percent) indicated that others should be involved in the process, either calling for all appropriate parties to be included (30.6 percent) or specifying educators (22.2 percent) in particular. By contrast, 33.3 percent called for "no one else" to be included or identified those parties who currently compose joint committees by definition (union and management), i.e., the "no change" faction. What this suggests is that although most (22 of 33) cite quality control as a problem, many want only the same actors currently involved in monitoring the process to continue in that capacity. The quality control issue, then, is much like the others. Problems exist and require resolution, but there are equally clear lines of resistance in coming to terms with them.

Survey Recommendations

One contribution of the survey, then, is to acknowledge the degree of dissonance within the apprenticeship community. There are those advocates of change, but a significant number who would reject change even in the face of clear advantages to it. What

the survey has determined is that resistance to change is a significant consideration and the facts themselves do not necessarily change attitudes toward it. Thus, the Department's effort to promote its notion of expanding the application of apprenticeship style training will not, by itself, do much to soften the opinion of this segment of the employment and training community. Overall then two problems are revealed. First is a lack of "facts" through objective research. Second, is the recognition that even if these did exist, the structural interests in the training community would not necessarily change as a result.

Another contribution of the survey is that a set of recommendations were generated by the respondents in order to provide the Department a means of improving the the accreditation and credentialing process. Table 2 identifies those recommendations.

TABLE 2

RECOMMENDATIONS OF SURVEY RESPONDENTS (N=39)

What overall recommendations would you provide the Bureau of Apprenticeship and Training as it tries to improve the current system of credentialing and accrediting programs both within current occupations and in non-traditional areas?
Note: Respondents could make up to four recommendations

Recommendation	n	Percentage of Cases	Percentage of Responses
1. Improve apprenticeship information in schools	2	5.1%	1.8%
2. Better publicity	21	53.8%	19.3%
3. Improve training/ trainers	4	10.3%	3.7%
4. Improve business/ industry commitment	9	23.1%	8.3%
5. Better funding for apps.	6	15.4%	5.5%
6. More flexibility	15	38.5%	13.8%
7. Better parent involvement	3	7.7%	2.8%
8. Recruit better trainees	6	15.4%	5.5%
9. Strengthen linkage with high school voc. progs.	17	43.6%	15.6%
10. Strengthen linkage with community colleges	10	25.6%	9.2%
11. Reduce bureaucracy/ "red tape"	5	12.8%	4.6%
12. More attention to disadvantaged/special needs populations	5	12.8%	4.6%
13. Other	1	2.6%	0.9%
	109		

In sum, the recommendations of the survey respondents amplified much of what has previously emerged. Those interviewed felt rather strongly that the Department should make a greater attempt to publicize the advantages and opportunities of work-based training; that stronger linkages should be made with high school vocational programs and the community colleges; that more flexibility should be introduced into the training process and, one would

presume, the apprenticeship structure; and that more be done to enhance the level of business and industry's commitment to work-based training. Indeed, not only did these recommendations reflect the position of the survey respondents but also reflect some of the recommendations in the Department's recent publication Work-Based Learning: Training America's Workers (1989), despite the fact that the survey was completed several months prior to the publication of the document. Thus, it contributes to a definition of several things that could be done to improve the situation relative to apprenticeship training and the audiences to which it may speak. It also generally supports the direction the Department is taking in this regard.

The survey results are also helpful in defining the context of the apprenticeship system as it exists. Clearly, it helps establish a basis for desirable modifications in the current means of operating programs. However, the purposes of this study are broader than the identifications of a few items that the Department should consider for the improvement of the system. After all, the goals set by Secretary Dole call for a transformation of the employment and training system in the nation rather than simply a repair of the mechanisms in place. More information and a broader view is called for. Accordingly, the study team discussed the expansion of work-based training more generally with 10 key opinion leaders.

Interviews of Opinion Leaders

The principal issue under consideration with the opinion leaders, most of whom were in the public sector involved with the creation and implementation of policy itself, was the extent to which any expansion of apprenticeship style training was possible. What were the barriers to its realization and what could be done to overcome them? Is change in this traditional area even realistic? What role should the Department play?

The study team interviewed these individuals with the assurance that their names would not be associated with specific comments. However, the names of these persons are listed in the appendix to document the fact that these respondents are very close to the situation in work-based training.

The initial concern of most of the leaders was that the barriers were matters of politics and institutional arrangements. "Work-based training will not be expanded by a simple declaration," one program administrator stated. "It will take a four-year period at least to introduce (change) and its going to take time, effort, and dollars. Even then, if it happens, there will be losers who will be alienated and not accept their situation quietly." This "turfism," as another individual called it, is the primary obstacle according to the leaders. There is a procedure to the way in which apprenticeships are done in this country. By attempting to standardize and credential training processes, one inescapably changes the political equation. This will have, according to these leaders, inevitable consequences.

Another related concern was the introduction of new actors into the process. "There is no reason in the world that proprietary schools, community colleges, and vocational-technical institutes cannot be brought into the system," a leader commented. "They could serve the Department well in a number of ways. They could create the instruments. Their courses could contribute to skill development in some credentialing processes. They could be the focal point for training in new technologies. They could provide alternatives to traditional apprenticeships. But their involvement would probably never be accepted."

Beyond the politics of the equation, it was felt by several individuals that women, minorities, and others may view progress in this area as the creation of yet another barrier to opportunity. As one respondent commented, "how do you get folks to buy into something that looks like standards being raised when your people are having a difficult time with access as it is?" Instead of greater opportunity, then, it could appear as another attempt to "creaming" and further depriving the "at-risk" worker.

Another question centering around the necessary "buy in" of groups within the apprenticeship community was the question of an incentive for members of the group to leave it. "You will never get the (name of group) to accept a situation that will encourage its people to separate." As well, another person noted that states will have to be involved. "It gets difficult when a program is fragmented 50 different ways." As such, the process of overcoming barriers may provide the seeds for new problems.

The final barrier discussed concerned whom would be in charge, i.e., who is going to set the standards to which everyone is supposed to adhere. The federal government's involvement alone would create a great deal of resistance, yet there would have to be a rather large portion of centralized control in order for any system to work. But what would their relationship to the states, the unions, the colleges, etc., be? As well, what of the relationships between natural competitors, such as union and non-union approaches to training? Clearly, another paradox is presented. The only group capable of leadership could be nearly universally opposed. As well, will historical rivals cease to oppose one another, even on grounds of "national interest"? How would this be presented and whom would "sell" it?

Despite the widespread acknowledgement of serious difficulties down the path, all of the leaders were very aware of the opportunities. "Work-based training is most productive in the long run. You can do more in less time than in any other format." In addition, one leader identified the fact that it can offer something "to make both employers and students care. The employer gets access to a labor pool that can be trusted. The trainee receives the assurance that the stuff in school has a direct, demonstrable linkage to reality. It also lets employees have some idea as to what kind of career path they are on and where it goes." It is, as another respondent put it, clearly "the best idea for the employee, at least in the context of a labor shortage. And it gives the employer an advantage in times of labor surplus."

What, then, would be required to bring such a program to fruition? Nearly all leaders pointed out that employers have to accept the credential. They will be, one stated, "if and only if you can create value for the employer. If you can, it will catch on, just like it has in academic credentialing." What kinds of "value" would employers need to be attribute to credentialed trainees? "First, you have to show them that the individual has been tested according to relevant characteristics. Then, you have to show some level of world-of-work attainment (i.e., responsibility skills), that there is an appropriate level of relevant basic skills, and finally, that the individual has the right vocational skills. You show all that and employers will buy into it."

What about the role of the federal government? "The only way is voluntary. You try to force anything in this environment and you go nowhere. But that isn't all bad. The creation of medical boards are, essentially, a private sector initiative. They work very well and are universally acceptable and highly portable." However, it was the consensus of the respondents that the Department had to make the process happen and encourage, though not necessarily control, enforcement.

But what kinds of factors will the Department have to include and how will they be integrated in such a way so that the existence of barriers will not destroy the process? The following section addresses this question.

Implementing the "New Model" of Work-Based Training

To summarize the foregoing, the implementation of the intentions of the Department of Labor involve introducing incentives to transform the context of work-based training as it exists today. A crucial part of that process is the establishment of a uniform system of training within new and emerging occupational areas and across industries. Once established, both the trainee and the employer, not to mention the society, would benefit greatly by the creation of a credential to acknowledge each level of skill development. The existence of credentials would assure the employer of--

- o training efficiency
- o equity of training opportunity
- o transferability
- o objectivity in trainee evaluation
- o greater employee productivity

But there are clear problems. One set of problems involves "turf." Institutional arrangements must emerge such that acceptance is maximized and the appearance of threat is minimized. As well, the role of the Department must be that of a catalyst of change as opposed to the appearance of mandating change.

A second set of concerns reflected in this study is that the foundation on which the value of work-based training exists, i.e., that it is superior for certain trainees than either classroom or on-the-job training, is questionable. The data which support it tend to be qualitative at best, generally anecdotal in nature.

While it is clear that the "facts" cannot persuade all, it could be a significant contribution to the Department's effort if the Secretary had her disposal a base of data to which she could refer in making her case.

While it is beyond the scope of this study to conduct such projects at this time, two distinct but related strategies are suggested by the foregoing analysis. The first would be a pilot project in which a distinct trainee population was selected in certain areas of the country most hospitable to the expansion of the work-based training concept. These trainees would receive instruction appropriate to new and emerging occupations in the area and then followed over a period of time.

The second strategy would have a much more specific research focus. Trainees would receive varieties of training experiences and the results compared. The following sections discuss these options in greater detail.

Strategy Number 1: Work-Based Training in a Demonstration Project

This project would be organized around disadvantaged populations and natural "feeder" systems. Based on the research showing both the clear need for the involvement of disadvantaged populations in the economy of the future and because of the tendency in the literature for work-based training to function more effectively with workers inclined toward experiential learning, it is proposed that the Department embark upon a test program to demonstrate the effectiveness with which training can occur.

Operationally, the Department may consider graduates of programs such as the Job Corps, JTPA, and those separating from the military as an eligible pool of applicants. These individuals, already having some level of skill, could be placed in an appropriate training program designed by employers, labor groups, and educators in a particular industry which does not have a formal apprenticeship training process and followed for a period of five years. After one or two years of training they would receive a credential from the employer-labor-educator committee endorsed with the imprimatur of the U.S. Department of Labor. Among other areas of concern, the employment histories of these individuals, their salary levels, the satisfaction of employers with their work, etc. would be measured. These data would be compared with workers in the industry that did not participate in this training.

Assuming the positions that the Department and others have taken over the years is in fact true, we should note a rather substantial difference in performance, job stability, and employer satisfaction among persons who received the training. Further, we should see some degree of employer recognition of the value of the certificate, providing a critical piece of information for the future of certification efforts. Finally, if the program took place in a region of the country in which a particular industry grew as expected, the degree to which these trained workers advanced would be a highly relevant indicator of the success of the program. Ultimately, effective results would provide the Depart-

ment with a far better basis to make claims for work-based training than it presently has. As such, one could reasonably expect a more substantial policy impact than present conditions seem to indicate. Additionally, the ability of the Department to stimulate change without imposing itself in a regulatory fashion could be demonstrated.

In terms of obvious drawbacks, this strategy has its share. Indeed, the advantage it would have of using "at-risk" trainees could tend to "CETA-ize" the program, i.e. that it might be seen as appropriate for the disadvantaged but no one else. The Department would have to balance this barrier against the clear difficulties it would have beginning the program with skilled, marketable workers that are currently competitive in the labor market. The Department would have to maintain its position that the program was not specifically aimed at the disadvantaged population exclusively. In addition, this program necessarily would cost some money and not yield positive benefits for several years. It may be difficult to maintain a consistent level of support for such a program through administrative changes. However, it is certain that the Department has to begin somewhere and we would suggest that such a demonstration project is a useful step in that direction.

Strategy Number 2: A Comparative Examination of Work-Based Training

This approach would address the question of the effectiveness and efficiency of work-based training as opposed to other training

modalities. As discussed previously in this paper, there seems to be a serious lack of supportive evidence for the unique value of apprenticeship-type training other than that of a generalized belief. It is proposed that the Department undertake a study involving a classic quasi-experimental design whereby one group of trainees in an occupational area would receive classroom instruction, another matched group receive on-the-job training, and a third group receive training designed by employers, labor groups, and educators combining classroom and OJT. Trainees would receive a common pre-test and a post-test after the indicated training periods and results compared. An analysis of the data should show differences. If the claims of work-based training are merited, a significant difference should emerge in terms of the work-based training group over either classroom or OJT. Further, it would be of interest to note any differences between the latter two groups as being indicative of whether either classroom or purely experiential learning contributed the greatest effect to trainee performance.

The advantages of this strategy are several. First, any improvement of work-based over other types of training modalities would be demonstrable in a way that is not currently available. On this basis, it could be fairly claimed that a credential which emerged from such training should be relatively more useful to an employer, hence more marketable, than other kinds of training received elsewhere. Finally, it would be a relatively inexpensive study to conduct, yielding potentially useful data for the Department.

In terms of disadvantages, this approach would not truly measure the impact of the credential except by implication. As such, the principal deficiency of this approach would be related to and a function of its principal advantage: its small scale and the relative political safety of its introduction.

Analysis

The approaches discussed can promise no more than a beginning in a long process of establishing work-based training as a viable means of bringing large components of the workforce of the future to a level of competency and skill flexibility appropriate for the challenges of the future. Yet, the alternatives are untenable. Either the Department can reach far beyond its scope in taking control of the entire employment and training arena or it can continue to encouraging the process of developing work-based training without taking direct action, an approach that has not yielded impressive results despite a laudable persistence on the part of the Department. Flawed as they are, it is the position of the study team that these two approaches, preferably utilized together, will assist the Department of Labor in establishing the value of work-based training in a way that is difficult to refute. To paraphrase one of the leaders, this is not something that can be accomplished by decree or attempts at persuasion. While solid results may not convince everyone, it may well serve to create the "critical mass" of support that is necessary to create change.

Indeed, work-based training has a great potential for the quality of the workforce and the future of the economy. It is the position of the study team that such potential can be realized. Along with it, the vision of Secretary Dole becomes significantly nearer to realization as well.

APPENDIX

APPRENTICESHIP ACCREDITATION

OUT OF STATE PARTICIPANTS

ARIZONA

Fred Works
Apprentice Committee

Sally Hall
Arizona Bureau of Apprenticeship & Training, U.S. Department of Labor

Barbara Border
State Director, Vocational Education

Dick Rizzo
Chairman of State Appenticeship Council

ILLINOIS

Jim Harvey
Director, Bureau of Apprenticeship & Training

Cathy Nichonson-Touch
Manager, Vocational Ed Program Services, Department of Vocational Ed

Jerry Baginski
Director, Illinois Tool & Die Association

Pete Johnson
State Advisory Council for Vocational Ed

Jerry Wright
Caterpiller Tractor Corporation

NEW YORK

Charles Farming
Carpenters Apprenticeship Program, New York City

Lee Traver
Bureau Chief, Agriculture & Trade Program, New York Department Vocational Ed

Helen Weinburg
Adult Education, New York City Public Schools

Don B. Grabowski
New York Bureau of Apprenticeship & Training

Ross McColi
Senior Training Supervisor, Xerox Corporation, Rochester

NORTH CAROLINA

Cliff Belcher
Director, Vocational Education, State Department of Education

Mike Pitman
Program Coordinator, North Carolina Community College System

Lisa Smith
Bass Air Conditioning Co.

Randy Oglesly
Director, Apprenticeship, Federal Paper Board Company

Ken Pittman
Director, Apprenticeship, North Carolina Department of Labor

APPRENTICESHIP ACCREDITATION

OHIO PARTICIPANTS

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Employee Benefit Administrator, General Motors, Columbus

Lee Blonton
Jobs for American Graduates

R. Clemens
Director, Business & Industry Services, North Central Technical College

Frankie Coleman
Franklin County JTPA

Joe Davis
Executive Director, Ohio Advisory Council on Vocational Education

Ron Foot
Coordinator of Apprenticeship, Division of Business & Industry Services, North Central Tech College

Jim Gill
Assistant State Supervisor, Trade & Industry

Tom Jenkins
Director, U.R.W., Skill Trades, Akron

Susan Joseph
Chairperson, OSU Department of Education

Ed Karusf
Columbus Area Chamber of Commerce

Dave Marshall
Coordinator, Apprenticeship Training, TV Glass Tubes, Owens-Illinois, Columbus

Darryl Parks
Director, Ohio Division of Vocational Education

Roland Patzer
Director, Ohio JTPA

Bud Plahota
B & G Tool Company, Columbus

Jim Racy
Central Ohio Electrical Workers Union

Robert Robe
Ohio Bureau of Rehabilitation

Byrl Shoemaker
Former Ohio Director of Vocational Education

Lynn Swisher
Ohio Industrial Commission, Rehabilitation

Tony Swoope
Director, Ohio Bureau of Apprenticeship & Training

Bob Wood
Coordinator & Chairman, Carpenter's State Commission on Apprenticeship

LEADER'S INTERVIEWED

Bill Browning
American Bankers Association

Dave Crawford
Secretary's Commission on
Workforce Quality and Labor
Market Efficincy, Department
of Labor

Nick Kolb
Bureau of Apprenticeship Training
Department of Labor

Anita Lancaster
Department of Defense

Irene Lind
Deparment of Labor

Bob Littman
Department of Labor

Mike Murphy
Job Corp, Department of Labor

Peter Sheets
American Bankers Association

Susan Sigal
Consultant

Jim Van Erden
Bureau of Apprenticeship Training,
Department of Labor

APPRENTICESHIP ACCREDITATION QUESTIONNAIRE

n = 39

Interviewer

Name _____

Date _____

How data collected (Check one)

- o Telephone _____
- o In person _____
- o Group Interview _____

Interviewee

Name _____

Agency/Organization _____

_____

Employer _____
- Large 6
- Small 2

Trade Group 2

Employment Agency _____

Education
- State 8
- Federal _____

Administration
- State 7
- Federal 1

Union Group 3

Other _____

- o Rehab 3
- o Special Interest 2
- o Postsecondary 3
- o JTPA 2

General

1. **Are the number of apprenticeships increasing?** constant 4; 13

decreasing? 22

2. **Will there be sufficient personnel to fill future apprenticeship openings or needs?** **Yes** 8 **No** 31

3. **In what employment areas will there be a shortage?**

General		New/Emerging	
Trade and skill areas	12	Service Occupations	8
Masonry/Construction	12	Auto & Diesel Mechanic	2
		Electrical	14
Machine Trades/Tool & Die	15	Other	2

4. **In the selection process, what, if any, recognition is given for previous training in vocational schools or colleges?**

In all/some programs/places	28
Few/none	5
Don't know/no answer	6

5. (a) **What group determines who is admitted to apprenticeship programs?**
DOL/BAT 1; Joint Committee 19; Employer 14; Union 10; JTPA 1; Applicant 1
(b) **Do you feel that current selection practice is directed towards craftsmen or management?**

Craftsmen	36
Management	6

6. **Are school grades, and test results used as part of the criteria for admission?**

Grades	2	None	2
Both to a degree	21	Don't know	2
Tests	12		

Process

7. **Should apprenticeship programs be accredited?** **Yes** 16 **No** 21 N/A 2

Comment:

Need agreement with 2-year colleges	4
Good idea	1
Yes, but later	1
Working okay now	2
Need better programs/change	4
State or federal agency should handle	2
Too much bureauracy now	2

8. **Which agencies are involved in the establishment of the accreditation/ registration agreement in most apprenticeship areas?**

Unions	5	Employers	6
Colleges/schools	8	State authorities	6
DOL/BAT	3	Don't know/no answer	21

9. **Who else should be involved?**

Employers	3	Unions	2
Educators	8	Don't know/no answer	26
		No one	3

10. **What group/agency performs ongoing review of the accredited program?**

State DOL	2	Vocational educators	2	Joint Committee	2
Unions	2	Colleges	1	Don't know/NA	28
				No one	1

11. **What are the two recommended improvements that should be considered regarding the accreditation process?**

(a)	Involve community colleges	5	State Council too bureaucratic/simplify	3
	Give program more credibility	1		
(b)	Involve vocational educators	3	Involve employers	1
	Standardize curricula	2	Establish joint board of all groups	1
	Eliminate favoritism	1		
	Don't know/NA	24	Don't accredit programs	1

Standards

12. **Are there standards in place for all apprenticeship programs?**

Yes 35 No 2 N/A 2

If yes to above, who generally sets the standards for the apprenticeship programs currently?

DOL/BAT	10	Unions	2	No one	1
Joint Committee	15	Employers	1	Don't know	3
State Dept. of Labor	6	Nat. standards for training	4		

13. **Who should help set standards generally for each apprenticeship program?**

Educators (general)	13	Employers	8	All groups	4
State Dept. of Labor	4	DOL/BAT	3	Don't know	2
Union/management only	10	Unions	3		

14. To what degree are these standards utilized?

Very closely	22
Somewhat closely	11
Very little	1
Not at all	0
Don't know/NA	5

15. What recommendations would you make on how standard setting and use could be improved?

(a)	Close gap between standards and technology	3
	Reduce standards	3
	Increase flexibility	8
	Recruit young, women, minorities	6
(b)	Raise standards	8
	Other	5
	None	6
	Don't know/no answer	4
(c)		

Credentials

16. Are the current credentials given at the completion of an apprenticeship program recognized by employers in your state?

Yes 39 No 0

17. In other states?

Yes 30 No 2 Don't know/no answer 7

In what form are these credentials given?

Cards 19

Certificates 23

18. What could be done to improve the recognition of this credential?

Improve visibility/PR	11	Improve information	3
Raise standards	1	Don't know/no answer	12
Okay the way it is	10		

19. What overall recommendations would you make?

(a)	Better publicity/visibility	10
	Improve relationship with DOL/BAT	1
	Improve tracking system	4
	Begin program in schools/colleges	5
(b)	Improve interagency cooperation	2
	Improve training quality	3
	None	5
	Don't know/no answer	6
(c)		

Quality Control

20. How is the overall quality control of the typical apprenticeship program conducted?

Staff personnel	3	State Dept. of Labor	2
Joint Committee	11	Other (mics.)	10
Employers	3	There is none	2
DOL/BAT	3	Don't know/NA	6

21. Who (agency/group) is involved with ongoing quality control monitoring?

Staff personnel	3	State Dept. of Labor	2
Shop committee	2	Joint committee	11
Employers	7	Schools/colleges	3
DOL/BAT	3	No one	3
Union	1	Don't know/NA	7

22. Who should be involved in this monitoring?

All parties	11	Unions	1
No one else	4	Employers	7
Journeymen	1	Government agency	4
School personnel	8	Don't know/NA	5

23. What needs to be checked most often for quality?

Apprentice records	5	Instruction/OJT	22
No particular item	2	Employability skills	1
Related work	3	Don't know/NA	10

Access Training Value

24. Who is involved (agency/group) in the evaluation of training effectiveness?

Schools? 6

Industry? 22

Union? 10

Joint Efforts? (Business/labor/school) 20

State Dept. of Labor 1

25. Should all agencies that provide formal apprenticeship recognized training be accredited?

Yes 18 No 18

If yes, who should be involved in the training value determination?

Industries using those workers	2	Government agencies	5
Schools	5	Unions	2

26. What is the biggest problem currently with the issue of training effectiveness?

Student monitoring/retention	7
Lack of training/student quality	20
Lack of industry commitment	6
None	1
Other	9

27. What would be your recommendation for improving this condition?

Decisive action	11	Lower standards	3
Work with educators	5	Better publicity	10
Tax credit for employers	2	Better selection/ recruitment	5
Work with parents	1		
Other	13		

28. Is the related training given on an organized basis using schools or colleges to provide the training?

Yes 17 Sometimes 19 No 1 Don't know/NA 2

29. Which trade areas do the best job of related training?

Electrical	12	Carpenters	3	Other	1
Sheet metal	2	Building trades	6	Don't know/NA	14
Plumbing	6	Machine repair	5		

Transportability of Credentials

30. Are persons' credientialed by the State Board of Apprenticeship or the U. S. Department of Labor, given recognition for the credentials by employers in hiring or pay schedule?

Yes 34 Sometimes 3 Don't know/NA 2

31. Are credentials transportable (recognized) across states?

Yes 30 Sometimes 3 Don't know/NA 6

32. Are credentials recognized more by some groups than others?

Large firms	25
Medium sized firms	16
Small firms	9
Non-union employers	8
Union employers	26

33. A. **Would individuals in the health field be receptive to an apprentice-type program recognized by the Department of Labor? If not why?**

Yes 7	No 26	Don't know/no answer 5
Problems in professional area		4
Lack of industry commitment		1
Turf		17
Not needed		4

B. **Would individuals in the auto mechanic field be receptive to an apprentice-type program recognized by the Department of Labor? If not why?**

Yes 13	No 18	Maybe 1	Don't know/no answer 6
Difficulty with small employers			8
People not interested			1
Pay difficulties			3
Not needed			3

Summary

Specific Recommendations. What overall recommendations would you provide BAT as it (a) tries to improve the current system of credentialling and accrediting programs within current occupations and move into non-traditoinal areas?

Improve apprenticeship career information in schools	2
Better publicity	21
Improve skills of training/trainer	4
Improve business/industry commitment	9
Fund apprenticeship programs better	6
Better coordination with business/industry	5
More training flexibility	15
Work more effectively with parents	3
Recruit better students	6
Strengthen/articulate with high school vocational programs	17
Better coordination with community colleges	10
Too much bureaucracy/government red tape	5
More attention to special needs population	5
Other	1

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